REMARKS

In response to the Office Action mailed April 8, 2008, Applicant respectfully requests reconsideration. Claims 1-36 were previously pending in this application. In this paper, claims 1, 5-7, 9, 12, 16-18, 20, 21, 25, 26, 28, 29, and 33-35 have been amended. As a result, claims 1-36 are pending for examination with claims 1, 12, 21 and 29 being independent claims. No new matter has been added.

I. Overview of the Disclosure

As an aid to the Examiner, Applicant provides a brief summary of the disclosure contained in the present application. This summary is not intended as a substitute for the Examiner reading the application in its entirety and is not intended to characterize the claims or any terms used in the claims, which are discussed individually below.

Briefly, the present application describes a method and system for maintaining virtual private network structures when a mobile device changes its address. A routing extension header is attached to a packet's header to specify a first address (home address) and a second address (new address). When the mobile node receives the packet, the mobile node's IP layer replaces the second address with the first address, thus allowing clients of the IP layer to only need a home address to communicate with another mobile node (pg. 24, lines 3-15).

The communication stack configuration shown in Fig. 3 illustrates a Virtual Private Network (VPN)/tunnel driver 330 configured as a driver and client of the TCP/IP layer in the stack of a mobile node. This enables the VPN/tunnel driver 330 to be bypassed when the mobile node is functioning in its home network and is not utilizing its VPN/tunnel functionality (pg. 16, lines 1-20).

II. Rejection Under 35 U.S.C. §102

Claims 1-20 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,832,322 ("Boden"). Applicant respectfully traverses the rejection to the extent they are maintained over the claims as amended herein.

A. Discussion of Boden

Boden is related to a method and system for integrating Internet Protocol (IP) Security with Network Address Translation. Fig. 2 of Boden teaches two networks 462 and 466 connected via VPN gateways A 470 and B 472 and a VPN tunnel 482. A Domain Name Server (DNS) is located behind the gateway 470 (Col. 7, lines 1-3). Gateway 470 translates alias destination addresses to real destination addresses used by gateway 472 via table 480 (Col. 7, lines 3-6). Tables 469 and 480 provide addressing and mapping information used by gateways A 470 and B 472 to route packages through the tunnel 482. Table 469 contains a host name and two IP addresses (Col. 5, lines 25-29) and is located in the DNS. The first IP address corresponds to a destination address and the second IP address corresponds to address values returned as a result of a DNS query (Col. 8, lines 36-40). The mapping and addressing information are defined according to VPN Nat rules configured by a user (Col. 7, lines 5-15; col. 7, lines 42-60). Translation of the addresses of packets is done before the packets are transmitted through the gateways and before IP security checks are performed.

B. Independent Claim 1

Applicant respectfully submits that Boden fails to teach or suggest all limitations of Applicant's amended claim 1, which recites, *inter alia*, transmitting, by the mobile node, a binding update to the virtual private network tunnel server specifying the new network address; and transmitting the home address and the new network address using a message packet with an extension header.

As noted above, in Boden, tables 480 and 469 provide mapping and addressing information so that an alias address is substituted with the actual address of a destination before execution of IP security protocols of gateway 470 and external network 466. Address substitution occurs before gateway 470 and thus packets sent through tunnel 482 only contain the actual address of a destination. One of ordinary skill in the art can thus appreciate that packets sent through the tunnel 482 only contain one address in the header of a packet. In

contrast, claim 1 recites "transmitting the home address and the new network address using a message packet with an extension header." Boden fails to teach or suggest transmitting an extension header and a message packet with the home address and the new address. In Boden, hosts 474 and 476 are connected via gateways 470 and 472, which essentially function like a home agent and a foreign agent. Extension headers are not needed if home and/or foreign agents or gateways perform mapping and addressing functions. Thus Boden effectively teaches away from the subject matter of claim 1.

Furthermore, in Boden, the DNS server and address and mapping information are configured by a user (Col. 7, lines 5-15; col. 7, lines 42-60). Entries are made for each host by the user through a graphical user interface. Boden fails to teach or suggest transmitting, by the mobile node, a binding update to the virtual private network tunnel server specifying a new address. In Boden, a user must update the entries for a mobile node.

In view of the foregoing, claim 1, as amended, patentably distinguishes over Boden and is in condition for allowance. Withdrawal of the rejection of claim 1 is respectfully requested.

Claims 2-11 depend from claim 1 and are patentable based at least upon their dependency. Therefore, withdrawal of the rejection of claims 2-11 is respectfully requested.

C. Independent Claim 12

Applicant respectfully submits that Boden fails to teach or suggest multiple limitations of amended claim 12, which recites, *inter alia*, transmitting, by the mobile node, a binding update to the virtual private network tunnel server specifying the new network address; and selectively processing received packets within a tunnel driver of an intermediate protocol stack layer of the mobile node, the processing within the tunnel driver being bypassed when the mobile node is connected in the home network.

As noted above, Boden fails to teach or suggest transmitting, by the mobile node, a binding update to the virtual private network tunnel server specifying the new network address.

In addition, Boden fails to teach a tunneling driver that selectively processes received packets. In fact, Boden fails to teach or suggest any type of intermediate protocol stack layer or tunnel driver. Even if one of ordinary skill in the art were to assume that Boden implicitly teaches a tunnel driver of an intermediate protocol layer, Boden still fails to teach or suggest any type of selective processing of received packets. In fact, since Boden uses gateways to perform mapping and addressing functions, Boden does not need to selectively process packets. In Boden all packets are processed the same way.

Accordingly, claim 12 patentably distinguishes over Boden and is in condition for allowance. Withdrawal of the rejection of claim 12 is respectfully requested.

Claims 13-20 depend from claim 12 and are patentable based at least upon their dependency. Therefore, withdrawal of the rejection of claims 2-11 is respectfully requested.

D. Independent Claim 21

Claim 21, as amended, recites, *inter alia*, transmitting, by the mobile node, a binding update to the virtual private network tunnel server specifying the new network address; selectively processing received packets within a tunnel driver of an intermediate protocol stack layer of the mobile node, the processing within the tunnel driver being bypassed when the mobile node is connected in the home network; and transmitting the home address and the new network address using a message packet with an extension header.

Applicant respectfully submits that Boden fails to teach or suggest multiple limitations of Applicant's amended claim 21. As noted above, Boden fails to teach or suggest transmitting a binding update to a VPN tunnel server, transmitting a message packet with an extension header and selectively processing received packets within a tunnel driver of an intermediate protocol stack layer.

Accordingly, claim 21 patentably distinguishes over Boden and is in condition for allowance. Withdrawal of the rejection of claim 21 is respectfully requested.

Claims 22-28 depend from claim 21 and are patentable based at least upon their dependency. Therefore, withdrawal of the rejection of claims 22-28 is respectfully requested.

E. Independent Claim 29

For reasons stated above, Applicant respectfully submits that Boden fails to teach or suggest multiple limitations of claim 29, such as receiving, from the mobile node, a binding update to the virtual private network tunnel server specifying a new network address that was assigned to the mobile node, the new network address differing from the home address for the mobile node; and transmitting the home address and the new network address using a message packet with an extension header, as recited, *inter alia*, in claim 29, as amended.

Accordingly, claim 29 patentably distinguishes over Boden and is in condition for allowance. Withdrawal of the rejection of claim 29 is respectfully requested.

Claims 30-36 depend from claim 29 and are patentable based at least upon their dependency. Therefore, withdrawal of the rejection of claims 30-36 is respectfully requested.

III. Comments on Dependent Claims

A number of dependent claims recite limitations that further patentably distinguish over Boden. For example, claims 6-7 are related to steps performed by the mobile node after receiving a message packet with an extension header from the VPN tunnel server. For example, claim 6 recites "replacing, by the mobile node, the new network address with the home address in a destination field of the received message packet" and claim 7 recites "an intermediate protocol stack layer that implements packet address handling policies and wherein the received message packet is thereafter passed up to clients of the intermediate protocol stack layer." Claims 17, 18, 25 and 26 recite limitations similar to the steps performed in claims 6-7.

Claims 9-10 recite limitations related to steps performed by the mobile node and virtual private network tunnel server when the mobile node transmits a packet to the VPN tunnel server.

For example, claim 9 recites placing, by the mobile node, the new network address within the source address field and the home address within the extension header of packets. Similarly, claims 20, 28 and 34 recite limitations similar to the steps performed in claims 9-10.

Boden fails to teach or suggest the limitations of claims 6, 7, 9, 10, 17, 18, 20, 25, 28 and 34, since Boden fails to teach or suggest transmitting a message packet with an extension header and since, in Boden, the mapping and address substitutions are performed at the DNS server behind gateway 470, as explained above.

Since each of the dependent claims depends from a base claim that is believed to be incondition for allowance, Applicant believes that it is unnecessary at this time to argue the allowability of each of the dependent claims individually. However, Applicant does not necessarily concur with the interpretation of the dependent claims as set forth in the Office Action, nor does the Applicant concur that the basis for the rejection of any of the dependent claims is proper. Therefore, Applicant reserves the right to specifically address the patentability of the dependent claims in the future.

CONCLUSION

In view of the above amendment, Applicant believes the pending application is in condition for allowance. A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Dated:

Respectfully submitted,

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